

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. – 14. (canceled)

15. (currently amended) A method, comprising:

sealing a device, the forming a device comprising:

a substrate;

a first die above the substrate and spaced apart from the substrate by a first distance to form a first volume between the substrate and the first die, the first die having a plurality of microelectronic devices;

a first plurality of connectors extending from the substrate to the first die;

a second die above the first die and spaced apart from the first die by a second distance to form a second volume between the first die and the second die, the second die having a plurality of microelectronic devices;

a second plurality of connectors extending from the first die to the second die;

wherein sealing the device comprises substantially sealing applying a layer of underfill material extending from the substrate to the second die to substantially seal the second volume between the first and second dies from a surrounding environment, and

~~curing the layer of underfill material after the underfill material has substantially filled the first volume between the first die and the substrate.~~

16. (currently amended) The method of claim 15, wherein formation of forming the device comprises:

fabricating the first die, the fabricated first die having a first set of first portions of the second plurality of connectors;

fabricating the second die, the fabricated second die having a second set of second portions of the second plurality of connectors;

singulating the first die from a first wafer comprising a plurality of dies;

singulating the second die from a second wafer comprising a plurality of dies; and

bonding the first set of first portions to the second set of second portions to connect the first die to the second die.

17. (currently amended) The method of claim 16, wherein the device is sealed layer of underfill material is applied after singulating the first and second dies have been singulated from the first and second wafers.

18. (currently amended) The method of claim 17 [[15]], wherein the device is sealed by a layer of underfill material and the layer of underfill material substantially fills the second [[a]] volume between the first integrated circuit die and the second integrated circuit die and around the second plurality of connectors.

19. (currently amended) The device of claim 17 [[15]], wherein the device is sealed by a layer of underfill material and the layer of underfill material comprises filler particles having an average diameter greater than the second distance between the first die and the second die.

20. (currently amended) The device of claim 17 [[15]], wherein the first distance between the substrate and the first die is in a range from about 75 microns to about 100 microns, and the second distance between the first die and the second die is in a range from about 100 nanometers to about 200 nanometers.

21. (new) The device of claim 17, wherein sealing the device comprises applying a layer of underfill material extending from the substrate to the second die.

22. (new) The method of claim 17, wherein the device is sealed by a layer of underfill material and the second volume between the first integrated circuit die and the second integrated circuit die and around the second plurality of connectors is substantially free of the underfill material.

23. (new) The method of claim 17, wherein sealing the device comprises applying a layer of material extending from the first die to the second die.

24. (new) The method of claim 17, wherein sealing the device comprises applying a first layer of underfill material extending from the substrate to the first die and applying a second layer of material extending from the first die to the second die.

25. (new) The method of claim 15, wherein the device is sealed by a layer of underfill material and the layer of underfill material substantially fills the second volume between the first integrated circuit die and the second integrated circuit die and around the second plurality of connectors.

26. (new) The method of claim 25, wherein sealing the device occurs after the first die has been bonded to the second die and before the first die has been bonded to the substrate.